

09/933,250

1754



Our ref: KON-1671

Client's refs: CDR-11858U

P-4760-001-0000

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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In re Application of: S. KAWABE :

Group : 1732

Serial No. : 09/933,250 :

Examiner: M. Eashoo

Filed : August 20, 2001 ;

For : AN EXTRUSION COATING :
METHOD

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DECLARATION

Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

S i r:

I, Shigetoshi Kawabe, hereby declare and say as follows:

1. I am the sole inventor of this Application.
2. I received a Bachelors degree in Engineering from
Yokohama National University in 1986.

3. Since 1986, I have been employed by Konica Corporation, the Assignee of this Application. During my employment at Konica, I have engaged in research and development in the field of photographic materials.
4. I am aware that the Examiner has rejected this Application based on US Patent No. 5,670,214 to Saito. Tests have been performed and are reported herein in order to demonstrate the criticality of the viscosity ratio of the present invention. These tests were performed either by myself or under my direct supervision and control.
5. Eight web-shaped substrates were prepared and coated in accordance with Example 1 of the Application. The viscosity of the lowermost layer solution (a) reported in mPa.s and the viscosity of the adjacent layer solution (b) reported in mPa.s were varied to form Samples 11-1 through 11-8 as shown in Table 12. The ratio of the viscosity of the adjacent layer solution to the viscosity of the lowermost layer solution

(b/a) of Samples 11-1, 11-3, 11-5 and 11-7 was 2.5. The ratio of the viscosity of the adjacent layer solution to the viscosity of the lowermost layer solution (b/a) of Samples 11-2, 11-4, 11-6 and 11-8 was 2.0.

6. Samples 11-1 through 11-8 were evaluated for the lower limit coating thickness of the adjacent layer in accordance with Example 1 of the Application. The lower limit coating thickness of the adjacent layer is defined on page 36 of the Application. The results of these evaluations are illustrated in Table 12.

Table 12

Sample No.	a	b	b/a	Lower Limit Coating Thickness of Adjacent Layer in μ m	Remarks
11-1	200	500	2.5	30	Present Invention
11-2	250	500	2.0	75	Comparative
11-3	100	250	2.5	22	Present Invention
11-4	125	250	2.0	58	Comparative
11-5	40	100	2.5	20	Present Invention
11-6	50	100	2.0	50	Comparative
11-7	32	80	2.5	20	Present Invention
11-8	40	80	2.0	30	Comparative

7. Table 12 demonstrates that the lower limit coating thickness of the adjacent layer of Samples 11-1, 11-3, 11-5 and 11-7 remained substantially uniform as the viscosity of the adjacent layer solution increased. In contrast, the lower limit coating thickness of the adjacent layer of Samples 11-2, 11-4, 11-6 and 11-8 increased dramatically as the viscosity of the adjacent layer solution increased.
8. Table 12 also demonstrates approximately a 30-60% decrease in the lower limit coating thickness of the adjacent layer at a b/a ratio of 2.5 compared to the lower limit coating thickness of the adjacent layer at a b/a ratio of 2.0 when the viscosity of the adjacent layer solution is not less than 10 mPa·s.
9. Table 12 therefore demonstrates the criticality of the viscosity ratio of the present invention at a b/a ratio of 2.5, as well as the enhanced effects of the invention when the viscosity of the adjacent layer solution is not less than 10 mPa·s. I am of the opinion that the results

illustrated in Table 12 are both surprising and unexpected based on the teachings of Saito.

It is declared by undersigned that all statements made herein of undersigned's own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements and the like so made are punishable by fine or imprisonment, or both, under section 18 U.S. Code 1001, and that such willful false statements may jeopardize the validity of this Application or any patent issuing thereon.

Shigetoshi Kawabe.
Shigetoshi Kawabe

Dated: This 23rd day of April , 2004.